

AMENDMENT TO THE CLAIMS

The following claims are pending and unchanged from the immediate prior version.

1-18. Cancelled.

19. (Currently Amended) Method for reception of radio data transmitted between at least two emitters and one receiver wherein the method comprises:

- a first step of receiving data transmitted by at least one multicarrier data transmission signal, the ~~said~~ multicarrier signal being formed from a sequence in time of symbols comprising firstly information data elements, and secondly reference elements called pilots, distributed within the ~~said~~ information data elements according to a predetermined pattern, and for which the value during emission is known to the ~~said~~ receiver, at least two of the ~~said~~ emitters using distinct pilot patterns such that at any given moment and at any given frequency, the ~~said~~ receiver can only receive one pilot from the ~~said~~ emitters;
- a second step of identifying the emitter, which emitted the ~~said~~ data, using a control information transmission signal, which allows notably the ~~said~~ receiver, upon data reception, to identify the ~~said~~ emitter that emitted them; and
- a third step of determining the ~~said~~ pilot pattern used by the ~~said~~ identified emitter.

20. (Currently Amended) Method for reception of data according to claim 19, wherein, when the ~~said~~ pilot pattern was generated using a generation function for which one parameter is an identifier of the ~~said~~ associated emitter, the ~~said~~ step of determining implements the ~~said~~ generation function as a function of the ~~said~~ identified emitter.

21. (Currently Amended) Method for reception of data according to claim 19 and further comprising a step for extracting the ~~said~~ pilots from the ~~said~~ multicarrier data transmission signal, and a step for estimating the transfer function of a transmission channel associated with the ~~said~~ multicarrier signal.

22. (Currently Amended) Method for reception of data according to claim 19, wherein the ~~said~~ multicarrier signal is of the OFDM type.

23. (Currently Amended) Method for reception of data according to claim 19, wherein each of the ~~said~~ emitters uses a specific pilot pattern.

24. (Currently Amended) Method for reception of data according to claim 19, wherein said method is implemented in a cellular radio communication network, the ~~said~~ emitters are base stations of the ~~said~~ network, and the ~~said~~ receiver is a mobile terminal.

25. (Currently Amended) Cellular radio communication system comprising:

at least two emitters and one receiver, implementing at least one multicarrier data transmission signal, the ~~said~~ multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the ~~said~~ information data elements according to a predetermined pattern, and for which the value on emission is known to the ~~said~~ receiver;

wherein at least two of the ~~said~~ emitters use distinct pilot patterns, such that only one pilot can be received by the ~~said~~ receiver from the ~~said~~ emitters, at a given time and at a given frequency; and

wherein said receiver comprises:

first means of receiving data transmitted by the ~~said~~ multicarrier data

transmission signal;

second means of identifying the emitter that emitted the ~~said~~ data, using a control information transmission signal, which allows notably the ~~said~~ receiver to identify the ~~said~~ emitter that emitted the data when it receives them; and

third means of determining the ~~said~~ pilot pattern used by the ~~said~~ identified emitter.

26. (Currently Amended) Mobile in a cellular radio communication system, comprising:

means of receiving radio data transmitted by at least two emitters, in the form of at least one multicarrier data transmission signal, the ~~said~~ multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the ~~said~~ information data elements according to a predetermined pattern, and for which the value on emission is known to the ~~said~~ mobile, at least two of the ~~said~~ emitters using distinct pilot patterns, such that only one pilot can be received by the ~~said~~ receiver from the ~~said~~ emitters, at a given time and at a given frequency;

means of receiving data transmitted by the ~~said~~ multicarrier data transmission signal;

means of identifying the emitter that emitted the ~~said~~ data, using a control information transmission signal, which allows notably the ~~said~~ receiver to identify the ~~said~~ emitter that emitted the data when it receives them; and

means of determining the ~~said~~ pilot pattern used by the ~~said~~ identified emitter.

27. (Currently Amended) A cellular radio communication mobile comprising a receiver adapted to receive radio data transmitted by at least two emitters, in the form of

at least one multicarrier data transmission signal, the ~~said~~ multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the ~~said~~ information data elements according to a predetermined pattern, and for which the value on emission is known to the ~~said~~ mobile, at least two of the ~~said~~ emitters using distinct pilot patterns, such that only one pilot can be received by the ~~said~~ receiver from the ~~said~~ emitters, at a given time and at a given frequency, wherein the receiver is adapted to identify the emitter that emitted the ~~said~~ data, using a control information transmission signal, which allows the ~~said~~ receiver to identify the ~~said~~ emitter that emitted the data when it receives them, and to determine the ~~said~~ pilot pattern used by the ~~said~~ identified emitter.